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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/542,116	07/12/2005	Joachim Charzinski	2002P20134WOUS	9813

87133   7590   06/08/2009
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EXAMINER
NGUYEN, THU HA T

ART UNIT	PAPER NUMBER
2453	

MAIL DATE	DELIVERY MODE
06/08/2009	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

	Application No.	Applicant(s)
Office Action Summary	10/542,116	CHARZINSKI ET AL.
	Examiner	Art Unit	
	THU HA T. NGUYEN	2453	

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS,
WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on <u>19 March 2009</u>.

2a) ☐ This action is **FINAL**.   2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
   closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) <u>19,21-23,25-27 and 29-38</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) <u>19, 21-23, 25-27 and 29-38</u> is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a) ☐ All   b) ☐ Some * c) ☐ None of:

      1. ☐ Certified copies of the priority documents have been received.

      2. ☐ Certified copies of the priority documents have been received in Application No. _____.

      3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage
         application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

DETAILED ACTION

1.   Claims **19, 21-23, 25-27, and 29-38** are presented for examination.

2.   Claims 19, 23, and 27 are currently amended.

3.   Claims 1-18, 20, 24, and 28 are cancelled without prejudice.

Continued Examination Under 37 CFR 1.114

4.   A request for continued examination under 37 CFR 1.114, including the
fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since
this application is eligible for continued examination under 37 CFR 1.114, and the fee
set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office
action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on
March 19, 2009 has been entered.

Response to Arguments

5.   Applicant's arguments with respect to claims 19, 21-23, 25-27 and 29-38
have been considered but are moot in view of the new ground(s) of rejection.

Claim Objections

6.   Claims 19, 23 and 27 are objected to because of the following
informalities: Claims 19, 23 and 27 recited "the event of failure..." there is lack of
antecedent basis for this limitation. Appropriate correction is required.

Claim Rejections - 35 USC § 101

7.   35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

8.   Claim 8 is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

9.   Claims 19, 23 and 27 fail the machine-or-transformation test which is a two-branched inquiry. It may be shown that a process claim satisfies 35 USC § 101 by showing that a claim is tied to a particular machine or by showing that a claim transforms an article into a different state or thing. See *Gottschalk v. Benson, 409 U.S. 63, 67 (1972)*. As to the first prong (machine), the Examiner cannot find any showing that these claims are attached to a specific machine. As to the second prong (transformation), the process claims do not transform a physical article into a different state or thing. The process claims are merely manipulating abstract data without regard to any physical article or object.

10.   Claim 38 is not limited to tangible embodiments. Claim 8 recited "A network node for a packet-switching data network..." is just limited to a functional descriptive materials" consists of computer program per se, instead of being defined as including tangible embodiments (i.e., a computer readable storage medium such as memory device, storage medium, etc.,). As such, the claim is not limited to statutory subject matter and is therefore nonstatutory. Appropriate correction is required.

Claim Rejections - 35 USC § 103

11.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for

all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

12.   Claims 19, 21-23, 25-27, and 29-38 are rejected under 35 U.S.C. § 103

(a) as being unpatentable over **Billhartz et al.** (hereinafter Billhartz) U.S. Pub. No.

2003/0202476, in view of **Dighe et al.** (hereinafter Dighe) U.S. Patent No. **6,141,319**.

13.   As to claim 19, **Billhartz** teaches the invention as claimed, including a

method for routing data packets having a destination address in a packet-switching data

network, wherein a first and a second transmission path is assigned to the destination

address, the first and second transmission paths included in a routing table of a network

node of the data network, wherein the first and second transmission paths have traffic

distribution weightings indicating a traffic load allocated to each transmission path, the

method comprising:

assigning a maximum traffic distribution weighting to the first transmission path

(paragraphs [0041-0043], [0048-0054], [0068-0071]); and

assigning a minimum traffic distribution weighting to the second transmission

path, wherein data packets are routed via the first transmission path during undisturbed

operation and the data packets are routed via the second transmission path if the first

transmission path is interrupted and no other transmission path has a positive traffic distribution weighting (paragraphs [0014], [0032-0044], [0047-0054], [0080-0081]).

However, **Billhartz** does not explicitly teach subsequently assigning the maximum traffic distribution weighting to the second transmission path in the event of failure of the first transmission path.

Dighe teaches subsequently assigning the maximum traffic distribution weighting to the second transmission path in the event of failure of the first transmission path (col. 6, line 24-col. 8, line 64).

It would have been obvious to one of ordinary skill in the Data Processing art at the time of the invention was made to combine the teachings of **Billhartz** to include the feature of subsequently assigning the maximum traffic distribution weighting to the second transmission path in the event of failure of the first transmission path as disclosed by **Dighe** because it would provide an efficient network restoration which optimizes the amount of primary capacity in a network while reserving sufficient capacity to restore all single-link failures.

14.   As to claim 21, **Billhartz** teaches the invention as claimed in claim 19, wherein, in the event of failure of the first transmission path, a third transmission path is calculated, which is given the minimum traffic distribution weighting ([0032-0044], [0050-0054]).

15.   As to claim 22, **Billhartz** teaches the invention as claimed in claim 19, wherein a network node is controlled such that the transmission path on which a network node receives a data packet is blocked for the return transmission of the same data packet ([0036-0038]).

16.   As to claim 23, **Billhartz** teaches the invention as claimed, including a method for routing data packets having a destination address in a packet-switching data network, wherein a first, a second, and a third transmission path is assigned to the destination address, the first, second, and third transmission paths included in a routing table of a network node of the data network, wherein the first, second, and third transmission paths have traffic distribution weightings indicating a traffic load allocated to each transmission path, the method comprising:

assigning a maximum traffic distribution weighting to the first transmission path (paragraphs [0041-0043], [0048-0054], [0068-0071]); and

assigning a minimum traffic distribution weighting to the second and to the third transmission path, wherein data packets are routed via the first transmission path during undisturbed operation and the data packets are routed via the second or third transmission path if the first transmission path is interrupted and no other transmission path has a positive traffic distribution weighting (paragraphs [0014], [0032-0044], [0047-0054], [0080-0081]).

However, **Billhartz** does not explicitly teach subsequently assigning a traffic distribution weighting that deviates from the minimum traffic distribution weighting of at

least one of the first or second transmission path in the event of failure of the first
transmission path.

Dighe teaches subsequently assigning a traffic distribution weighting that
deviates from the minimum traffic distribution weighting of at least one of the first or
second transmission path in the event of failure of the first transmission path (col. 6, line
24-col. 8, line 64).

It would have been obvious to one of ordinary skill in the Data Processing art at
the time of the invention was made to combine the teachings of **Billhartz** to include the
feature of subsequently assigning a traffic distribution weighting that deviates from the
minimum traffic distribution weighting of at least one of the first or second transmission
path in the event of failure of the first transmission path as disclosed by **Dighe** because
it would provide an efficient network restoration which optimizes the amount of primary
capacity in a network while reserving sufficient capacity to restore all single-link failures.

17.   As to claim 25, **Billhartz** teaches the invention as claimed in claim 23,
wherein, in the event of failure of the first transmission path, at least one additional
transmission path is calculated that is given the minimum traffic distribution weighting
(0032-0044], [0050-0054], [0080-0081]).

18.   As to claim 26, **Billhartz** teaches the invention as claimed in claim 23,
wherein a network node is controlled such that the transmission path on which a

network node receives a data packet is blocked for the return transmission of the same

data packet ([0036-0038]).

      19.   As to claim **27, Billhartz** teaches the invention as claimed, including a

method for routing data packets having a destination address in a packet-switching data

network, wherein a first, a second, and a third transmission path is assigned to the

destination address, the first, second, and third transmission paths included in a routing

table of a network node of the data network, wherein the first, second, and third

transmission paths have traffic distribution weightings indicating a traffic load allocated

to each transmission path, the method comprising assigning a minimum traffic

distribution weighting to the third transmission path, wherein the third transmission path

is used for the transmission of data packets only in the event of failure of at least a part

of both the first and second transmission paths and no other transmission path has a

positive traffic distribution weighting (paragraphs [0032-0044], [0047-0054], [0065-

0071], [0080-0081]).

However, **Billhartz** does not explicitly teach subsequently assigning a traffic

distribution weighting that deviates from the minimum traffic distribution weighting of at

least one of the first or second transmission path in the event of failure of the first

transmission path.

Dighe teaches subsequently assigning a traffic distribution weighting that

deviates from the minimum traffic distribution weighting of at least one of the first or

second transmission path in the event of failure of the first transmission path (col. 6, line 24-col. 8, line 64).

It would have been obvious to one of ordinary skill in the Data Processing art at the time of the invention was made to combine the teachings of **Billhartz** to include the feature of subsequently assigning a traffic distribution weighting that deviates from the minimum traffic distribution weighting of at least one of the first or second transmission path in the event of failure of the first transmission path as disclosed by **Dighe** because it would provide an efficient network restoration which optimizes the amount of primary capacity in a network while reserving sufficient capacity to restore all single-link failures.

20.   As to claim 29, **Billhartz** teaches the invention as claimed in to claim 27, wherein, in the event of failure of at least a part of the transmission paths with values that deviate from the minimum traffic distribution weighting, at least one further transmission path is calculated that is given the minimum traffic distribution weighting (0060-0071], [0080-0081]).

21.   As to claim 30, **Billhartz** teaches the invention as claimed in claim 27, wherein a network node is controlled such that the transmission path on which a network node receives a data packet is blocked for the return transmission of the same data packet ([0036-0038]).

22.   As to claim 31, **Billhartz** teaches the invention as claimed in to claim 27, wherein a multipath routing method is applied in the packet-switching data network ([0015], [0036], [0077]).

23.   As to claim 32, **Billhartz** teaches the invention as claimed in claim 27, wherein a network operated in conformance with the Internet Protocol is used as the packet-switching data network ([0015], [0036-0037], [0077]).

24.   As to claim 33, **Billhartz** teaches the invention as claimed in claim 27, wherein at least the failure of the first transmission path of a network node is communicated to at least one further network node ([0048-0062]).

25.   As to claim 34, **Billhartz** teaches the invention as claimed in claim 33, wherein the transmission is effected by means of a protocol ([0015], [0036-0037], [0077]).

26.   As to claim 35, **Billhartz** teaches the invention as claimed in claim 33, wherein a recalculation of at least one transmission path of at least one destination address is carried out in at least one further network node ([0048-0062]).

27.   As to claim 36, **Billhartz** teaches the invention as claimed in claim 27, wherein at least one further traffic distribution weighting is assigned to the transmission

paths with a minimum traffic distribution weighting entered in the routing table, said
further traffic distribution weighting being used if a transmission path is interrupted
([0032-0044], [0050-0054], [0080-0081]).

28.   As to claim 37, **Billhartz** teaches the invention as claimed in claim 36,
wherein a transmission path is assigned respectively to the further traffic distribution
weightings entered in the routing table and this traffic distribution weighting is used in
the event of failure of the assigned transmission path ([0032-0044], [0050-0054], [0080-
0081]).

29.   As to claim 38, **Billhartz** teaches the invention as claimed, including a
network node for a packet-switching data network, comprising: a routing table for
entering destination addresses to which transmission paths and traffic distribution
weightings are assigned, wherein at least two paths are provided per destination
address, and wherein the routing table is structured in a manner such that the minimum
traffic distribution weighting is assigned to at least one transmission path for a
destination address and no other transmission path has a positive traffic distribution
weighting, the transmission of at least one part of the packets is effected via the path
with the minimum traffic distribution weighting (paragraphs [0032-0044], [0047-0054],
[0065-0071], [0080-0081]).

However, **Billhartz** does not explicitly teach at least one other transmission path
has a traffic distribution weighting that deviates from the minimum traffic distribution

weighting and in that the router can be controlled such that in the event of interruption of

at least one part of the paths with a traffic distribution weighting that deviates from the

minimum traffic distribution weighting.

Dighe teaches at least one other transmission path has a traffic distribution

weighting that deviates from the minimum traffic distribution weighting and in that the

router can be controlled such that in the event of interruption of at least one part of the

paths with a traffic distribution weighting that deviates from the minimum traffic

distribution weighting (col. 6, line 24-col. 8, line 64).

30.   It would have been obvious to one of ordinary skill in the Data Processing

art at the time of the invention was made to combine the teachings of **Billhartz** to

include at least one other transmission path has a traffic distribution weighting that

deviates from the minimum traffic distribution weighting and in that the router can be

controlled such that in the event of interruption of at least one part of the paths with a

traffic distribution weighting that deviates from the minimum traffic distribution weighting

as disclosed by **Dighe** because it would provide an efficient network restoration which

optimizes the amount of primary capacity in a network while reserving sufficient capacity

to restore all single-link failures.

Conclusion

31.   The prior art made of record and not relied upon is considered pertinent to

applicant's disclosure.

32.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thu Ha Nguyen, whose telephone number is (571) 272-3989. The examiner can normally be reached Monday through Friday from 8:30 AM to 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ario Etienne, can be reached at (571) 272-4001.

The fax phone numbers for the organization where this application or proceeding is assigned are (571) 273-8300 for regular communications.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/THUHA T. NGUYEN/

Primary Examiner, Art Unit 2453